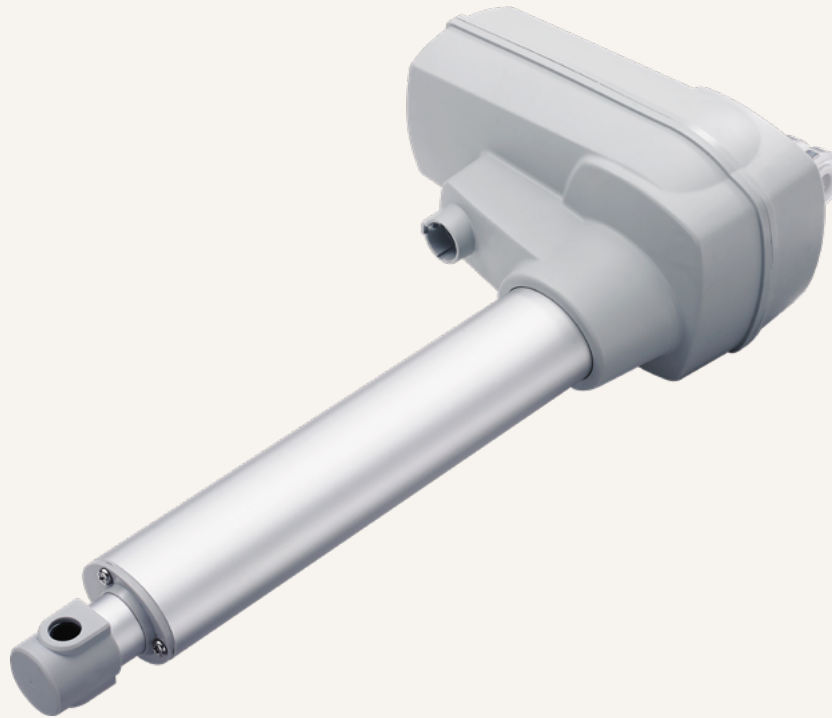


TA24

series



Product Segments

- **Care Motion**
- **Industrial Motion**

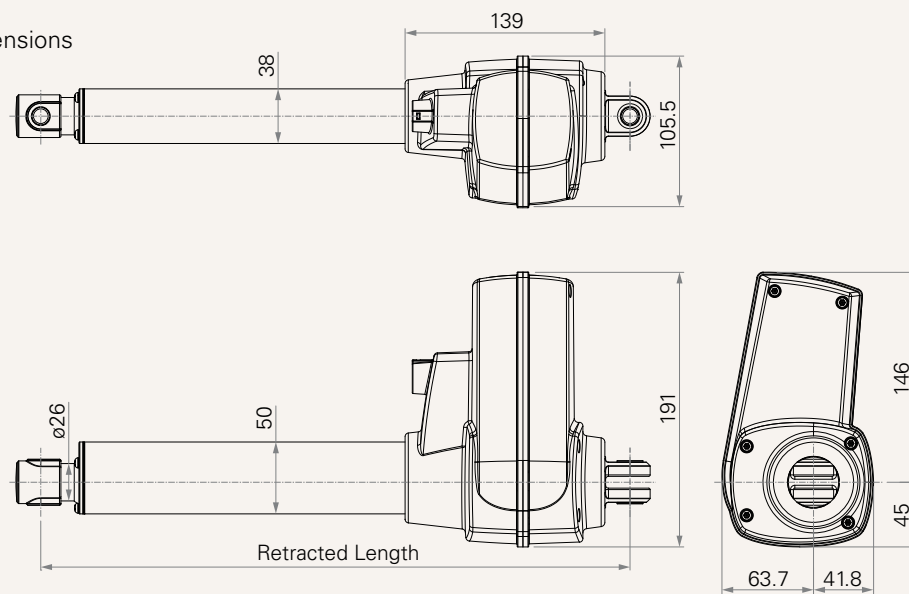
The TA24 series linear actuator is suited for healthcare and industrial applications. The certifications for the TA24 include IEC60601-1 and ES60601-1. In addition, the TA24 linear actuator is available with an optional up to IP66W rating. Other options include Hall or POT feedback sensors.

General Features

Voltage of motor	24V DC, 36V DC; 24V DC (PTC)
Maximum load	10,000N in push
Maximum load	6,000N in pull
Maximum speed at full load	8mm/s (with 6,000N in a push or pull condition)
Stroke	25~900mm
Minimum installation dimension	≥ Stroke + 190mm
Color	Black or grey
IP rating	Up to IP66W
Certificate	IEC60601-1, ES60601-1, IEC60601-1-2
Operational temperature range	+5°C~+45°C
Options	Safety nut, Hall / POT sensor(s)

Drawing

Standard Dimensions
(mm)



Load and Speed

CODE	Load (N)		Self Locking Force (N)	Typical Current (A)		Typical Speed (mm/s)	
	Push	Pull		No Load 32V DC	With Load 24V DC	No Load 32V DC	With Load 24V DC
Motor Speed (4200RPM, duty cycle 10%)							
B	6000	6000	6000	1.5	6.0	13.9	8.0
C	8000	6000	8000	1.5	9.0	11.9	6.4
D	10000	6000	10000	1.5	9.8	10.3	5.4

Note

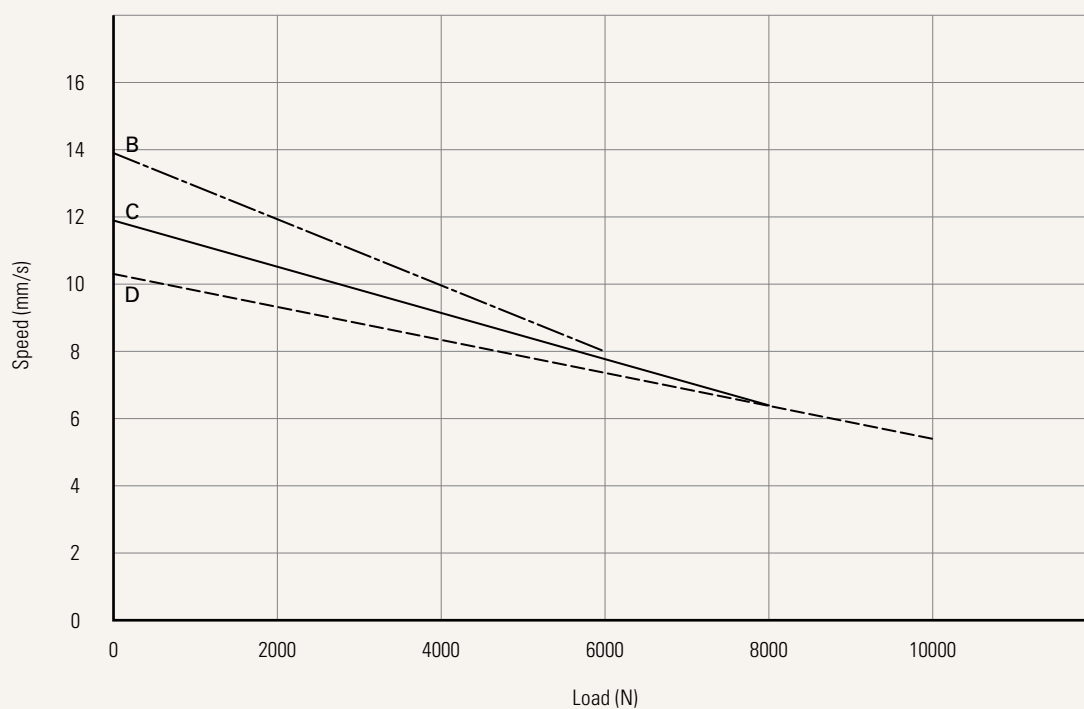
- 1 The current & speed in table are tested with 24V DC motor. With a 12V DC motor, the current is approximately twice the current measured in 24V DC. With a 36V DC motor, the current is approximately two-thirds the current measured in 24V DC. Speed will be similar for all the voltages.
- 2 This self-locking force level is reached only when a short circuit is applied on the terminals of the motor. All the TiMOTION control boxes have this feature built-in.
- 3 The current & speed in table are tested when the actuator is extending under push load.
- 4 Standard stroke: Min. ≥25mm, Max. please refer to below table

CODE	Load (N)	Max Stroke (mm)
B	6000	900
C	8000	800
D	10000	650

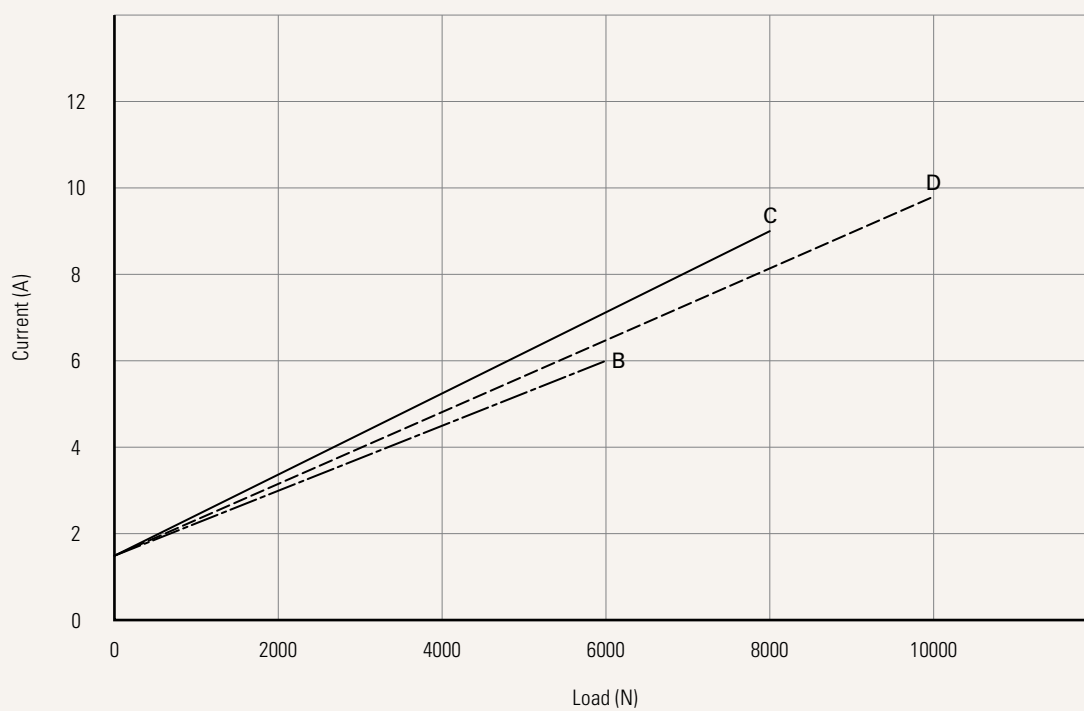
Performance Data (24V DC Motor)

Motor Speed (4200RPM)

Speed vs. Load



Current vs. Load



Voltage	2 = 24V DC	3 = 36V DC	5 = 24V DC, PTC
Load and Speed	See page 2		
Stroke (mm)			
Retracted Length (mm)	See page 6		
Rear Attachment (mm) See page 7	6 = Aluminum casting, clevis U, slot 8.2, depth 17.0, hole 10.2 7 = Aluminum casting, clevis U, slot 8.2, depth 17.0, hole 12.2 8 = Aluminum casting, clevis U, slot 10.2, depth 17.0, hole 10.2	9 = Aluminum casting, clevis U, slot 10.2, depth 17.0, hole 12.2 C = Aluminum casting, clevis U, slot 8.2, depth 17.0, hole 10.2, T bush	
Front Attachment (mm) See page 7	1 = Inner tube with punched hole + plastic cap, no slot, hole 10.2, with bush 2 = Inner tube with punched hole + plastic cap, no slot, hole 12.2 5 = Inner tube with punched hole, no slot, hole 10.2, with bush 6 = Inner tube with punched hole, no slot, hole 12.2	7 = Aluminum casting, clevis U, slot 6.2, depth 17.0, hole 10.2 8 = Aluminum casting, clevis U, slot 6.2, depth 17.0, hole 12.2 9 = Aluminum casting, clevis U, slot 6.2, depth 17.0, hole 10.2, with T bush J = Aluminum casting, no slot, hole 10.2, for Dental Chair	
Direction of Rear Attachment (Counterclockwise) See page 8	1 = 0°	3 = 90°	
Color	1 = Black	2 = Grey (Pantone 428C)	
IP Rating	1 = Without	2 = IP54	3 = IP66 5 = IP66W
Special Functions for Spindle Sub-Assembly	0 = Without 1 = Safety nut	2 = Standard push only 3 = Standard push only + safety nut	
Functions for Limit Switches See page 8	1 = Two switches at full retracted / extended positions to cut current		
Output Signals	0 = Without	1 = Hall sensor*1	2 = Hall sensors*2 3 = POT
Connector See page 8	0 = DIN 6P, socket on gear box 1 = DIN 6P, 90° plug 2 = Tinned leads	4 = Big 01P, plug E = Molex 8P, plug F = DIN 6P, 180° plug	G = Audio plug
Cable Length (mm)	0 = Without, for socket on gear box 1 = Straight, 500	2 = Straight, 750 3 = Straight, 1000 4 = Straight, 1250	5 = Straight, 1500 6 = Straight, 2000 7 = Curly, 200 8 = Curly, 400

TA24 Patient Hoist Ordering Key

TA24

Version: 20171211-C

Voltage	2 = 24V DC	5 = 24V DC, PTC	
Load and Speed	See page 2		
Stroke (mm)			
Retracted Length (mm)	See page 6		
Rear Attachment (mm)	C = Aluminum casting, clevis U, slot 8.2, depth 17.0, hole 10.2, T bush		
	See page 7		
Front Attachment (mm)	F = Aluminum casting, clevis U, slot 8.2, depth 19.0, hole 10.2, T bushing, for Manual Release		
	See page 7		
Direction of Rear Attachment (Counterclockwise)	1 = 0°		
	See page 8		
Color	1 = Black	2 = Grey (Pantone 428C)	
IP Rating	2 = IP54	3 = IP66	5 = IP66W
Special Functions for Spindle Sub-Assembly	6 = Mechanical push only + safety nut		
Functions for Limit Switches	1 = Two switches at full retracted / extended positions to cut current		
	See page 8		
Output Signals	0 = Without		
Connector	1 = DIN 6P, 90° plug	F = DIN 6P, 180° plug	G = Audio plug
	See page 8		
Cable Length (mm)	1 = Straight, 500 2 = Straight, 750	3 = Straight, 1000 4 = Straight, 1250	5 = Straight, 1500 6 = Straight, 2000

Retracted Length (mm)

1. Calculate $A+B = Y$
2. Retracted length needs to $\geq$ Stroke + Y

A. Front Attachment

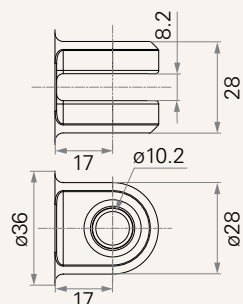
Front Attachment	General	Patient Hoist
1, 2, 5, 6	+190	-
7, 8, 9	+202	-
J	+193	-
F	-	+267

B. Load V.S. Stroke

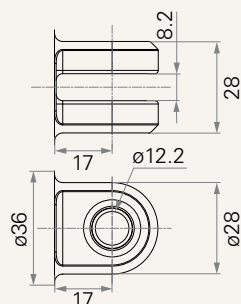
Stroke (mm)	Load (N)			Patient Hoist
	General			
	B	C	D	
0~150	-	-	+5	-
151~200	-	+5	+10	-
201~250	+5	+10	+15	-
251~300	+10	+15	+20	+5
301~350	+15	+20	+25	+10
351~400	+20	+25	+30	+15
401~450	+25	+30	+35	+20
451~500	+30	+35	+40	+25
501~550	+35	+40	+45	+30
551~600	+40	+45	+50	+35
601~650	+45	+50	+55	+40
651~700	+50	+55	-	-
701~750	+55	+60	-	-
751~800	+60	+65	-	-
801~850	+65	-	-	-
851~900	+70	-	-	-

Rear Attachment (mm)

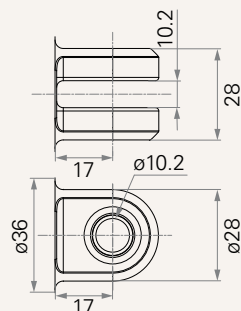
6 = Aluminum casting, clevis U, slot 8.2, depth 17.0, hole 10.2



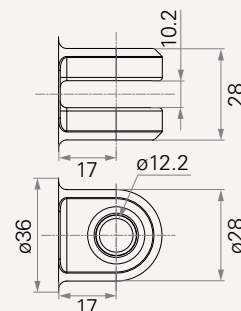
7 = Aluminum casting, clevis U, slot 8.2, depth 17.0, hole 12.2



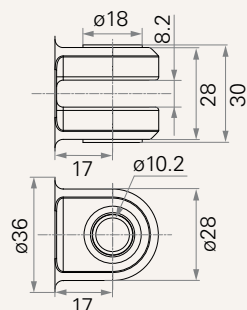
8 = Aluminum casting, clevis U, slot 10.2, depth 17.0, hole 10.2



9 = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 12.2

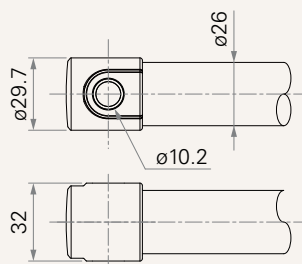


C = Aluminum casting, U clevis, slot 8.2, depth 17.0, hole 10.2, T-bush

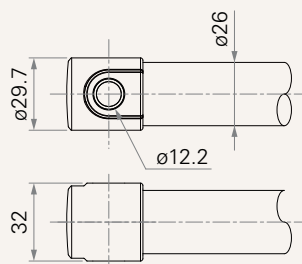


Front Attachment (mm)

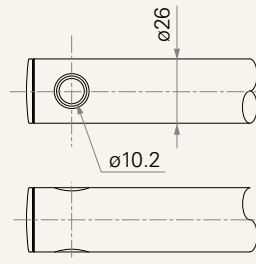
1 = Inner tube with punched hole + plastic cap, no slot, hole 10.2, with bush



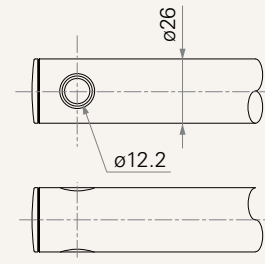
2 = Inner tube with punched hole + plastic cap, no slot, hole 12.2



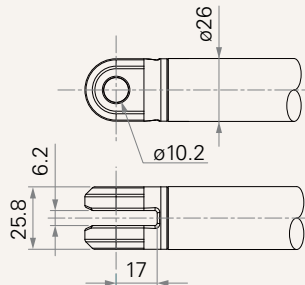
5 = Inner tube with punched hole, no slot, hole 10.2, with bush



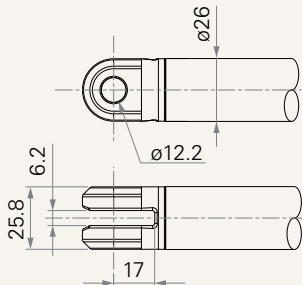
6 = Inner tube with punched hole, no slot, hole 12.2



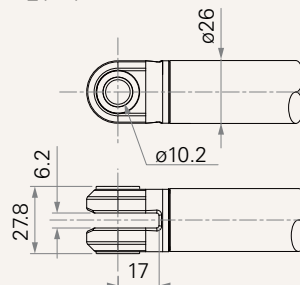
7 = Aluminum casting, clevis U, slot 6.2, depth 17.0, hole 10.2



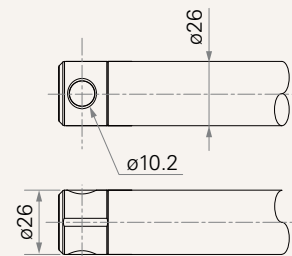
8 = Aluminum casting, clevis U, slot 6.2, depth 17.0, hole 12.2



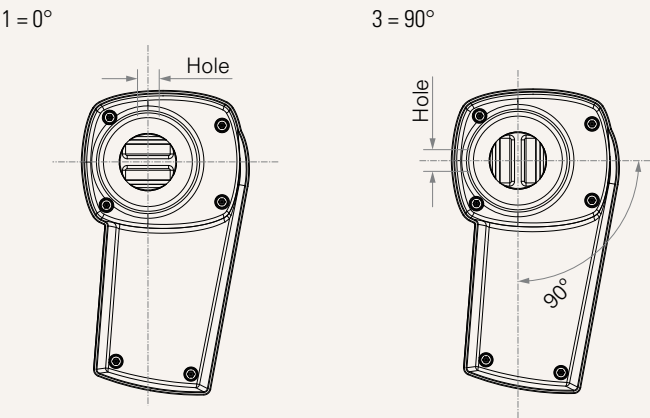
9 = Aluminum casting, clevis U, slot 6.2, depth 17.0, hole 10.2, with



J = J = Aluminum casting, no slot, hole 10.2, for Dental Chair



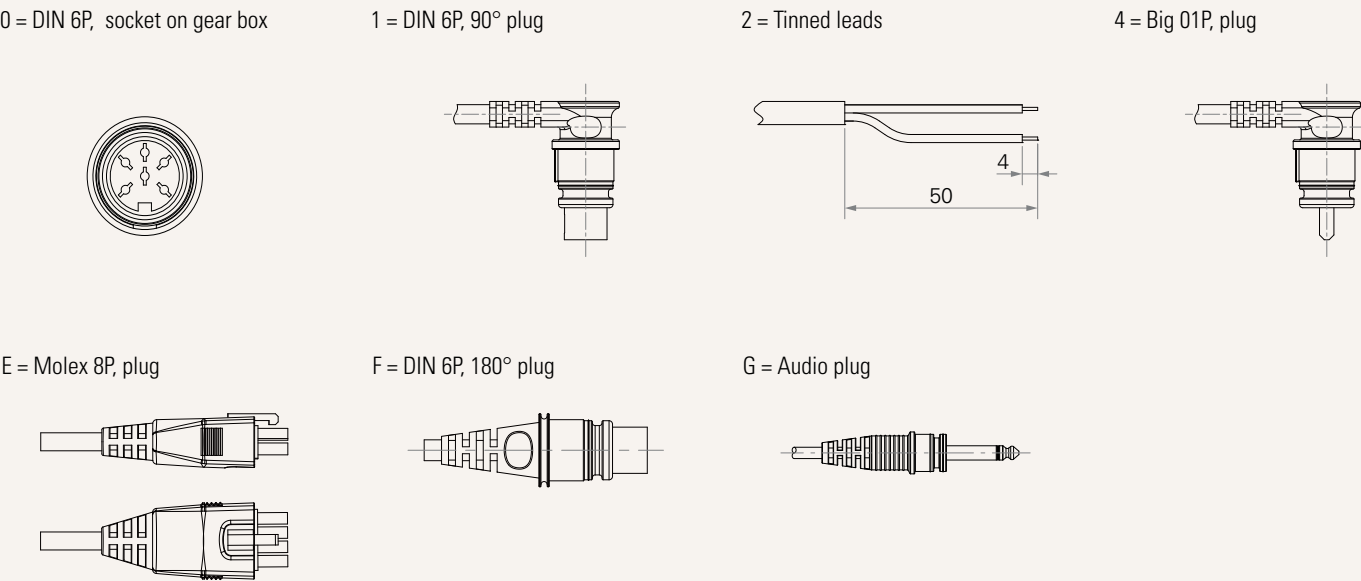
Direction of Rear Attachment (Counterclockwise)



Functions for Limit Switches

Wire Definitions						
CODE	Pin					
	1 (Green)	2 (Red)	3 (White)	4 (Black)	5 (Yellow)	6 (Blue)
1	extend (VDC+)	N/A	N/A	N/A	retract (VDC+)	N/A

Connector



Terms of Use

The user is responsible for determining the suitability of TiMOTION products for a specific application. TiMOTION products are subject to change without prior notice.